SALTON SEA ADVISORY COMMITTEE MEETING

March 16, 2006
9:30 – 3:30
Los Angeles, CA

Welcome and Introductions

Mike Chrisman, Secretary for Resources, welcomed the Committee Members and led introductions of those present (see attached list).

Updates from the Resources Agency

Secretary Chrisman provided an update on the status of the project and noted that three alternatives were added at the January 31, 2006 Committee meeting, Saline Habitat Complex I, Concentric Lakes, and Combined North and South Lakes. A fact sheet summarizing the draft inflows hydrology report for the study was included in the handouts. Dale Hoffman-Floerke, Department of Water Resources (DWR), noted that DWR and the Department of Fish and Game (DFG) have been working with the Salton Sea Authority (SSA) and the Imperial Group to obtain the information needed to evaluate their alternatives in the Programmatic Environmental Impact Report (PEIR) and Ecosystem Restoration Study (ERS). DWR and DFG provided a list of questions and information needs to both the SSA and the Imperial Group. Both groups have provided the bulk of the information needed. However, DWR and DFG will continue to work closely with the SSA and the Imperial Group to fill data gaps and clarify the information provided for the PEIR. Ms. Hoffman-Floerke noted that DWR and DFG appreciate the SSA's and Imperial Group's efforts in providing the necessary information.

Public Comments

No public comments were provided.

Status Report of QSA Habitat JPA Activities

Bruce Wilcox, Imperial Irrigation District (IID), provided an update on the status of the Natural Communities Conservation Plan (NCCP). Five independent scientists have been selected for the Science Advisory Panel. The Science Advisory Panel has begun reviewing the Habitat Conservation Plan for its relevance and use in preparing the NCCP along with reviewing the preliminary goals and objectives for the NCCP. A public involvement plan is being developed and IID anticipates holding a series of public workshops in development of the NCCP. Based on the preliminary schedule, the Draft NCCP and EIR may be released at the end of this year.

Update on Bureau of Reclamation's Feasibility Study

Mike Walker, U.S. Bureau of Reclamation (Reclamation), provided an update on Reclamation's Feasibility Study. In Phase 1, Reclamation has narrowed its range of 11 alternatives down to five based on environmental and related considerations. Additional narrowing will be conducted based on engineering/design and costs considerations to select a Preferred Alternative. The Preferred Alternative will be carried forward for further analysis in Phase 2 of the study. Mr. Walker noted that the SSA's alternative will also be carried forward into Phase 2. Reclamation anticipates selecting the Preferred Alternative by the end of May. Phase 2 will be a more focused, engineering-oriented investigation and analyses and will be completed by December 31, 2006. Mr. Walker noted that Reclamation is working closely with DWR, DFG and the SSA.

Mr. Walker noted that the SSA has submitted several proposals to Reclamation for funding. Proposals include in-Sea geotechnical investigations, quarry investigations, and design studies such as stability analyses, seepage analyses, and seismic response analyses. Several proposals for water quality investigations to collect and analyze data, and perform modeling studies have also been received. Also, a proposal to perform a "pilot" project to investigate potential hydrogen sulfide problems and ways to reduce it was submitted. Reclamation will have the final proposals peer reviewed before selecting projects for partial or full funding, and the final proposals will be made available to the public. Although the studies are anticipated to provide information more specific to the SSA's Combined North and South Lakes proposal, it is anticipated that the funded studies will also provide useful information for both Reclamation's Feasibility Study and the State's process.

Update from Salton Sea Authority

Gary Wyatt, SSA, provided an update on the SSA's activities. The SSA has been working to provide the requested information to the State, and is also working with Reclamation on the proposals described above. Mr. Wyatt noted that the proposals primarily consist of engineering-related projects, and are not necessarily scientific studies.

Air Quality Management for Alternatives

Pamela Vanderbilt, CH2M HILL, provided a summary of the Air Quality Work Group meeting on March 14, 2006, including a brief overview of the presentations, and a list of recommendations from the Air Quality Work Group. Ms. Vanderbilt noted that the State would like the Committee to confirm or modify the Work Group recommendations and assumptions.

The March 14, 2006 Air Quality Work Group meeting was held to (1) address playa emissivity and playa management questions in support of Reclamation's Feasibility Study, (2) evaluate dust control technologies proposed by the SSA and others, and (3) review assumptions for the State's process. As was discussed at the Work Group

meeting, it was noted that the air quality management approaches developed in the State's process must be consistent with the existing mitigation plans and requirements, air district regulations and Best Available Control Measures, and must recognize uncertainty in the location and extent of emissive areas. A variety of dust control measures have been developed to meet these requirements. This "tool box' of measures include options that require water, such as water-efficient vegetation, and options that require minimal water, such as gravel cover and chemical stabilizers. A member of the public noted that stabilization with brine will use "excess" water and therefore, should be in the "options that require minimal water" category. A Committee member suggested that operations and maintenance costs would be high for drip irrigation systems that use drain water.

The Air Quality Work Group made the following recommendations at their March 14, 2006 meeting:

- Portions of the exposed playa areas would likely be emissive; this may be seasonal.
- Inflow water should be allocated for future potential air quality management needs.
- Irrigated vegetation should be carried forward as one of the control measures for consideration in the PEIR.
- The "tool box" of dust control measures should remain open. No options should be eliminated from consideration in the PEIR unless proved infeasible or ineffective.
- Assume implementation of water-based control on 50 percent of playa area; assume other areas either not emissive or controlled by other means.

The Air Quality Work Group also made the following additional recommendations for assumptions used in the PEIR and ERS:

- Assume allocation of one acre-foot per acre per year for 50 percent of exposed area under each alternative.
- Should allocated resources prove to be in excess of actual air quality management needs, excess water can be re-allocation to other uses in the ERS.
- Should additional resources be required for air quality management, supplemental environmental documentation would likely be required.

The Committee discussed the recommendations and assumptions in detail. It was noted that the use of irrigated vegetation to control playa emissions and the one acre-foot of inflow water needed per acre to sustain this vegetation are only placeholder assumptions. The specific air quality management measures used will be tested and demonstrated in future studies and site-specific environmental documents.

A Committee member discussed his idea to construct low berms to "flush" salt from the seabed, then planting, for example, salt grass for air quality mitigation.

The Committee voted unanimously to accept the recommendations of the Air Quality Work Group. A Committee Member requested that capital and operations and maintenance costs, along with water sources for irrigated vegetation be included in the ERS and PEIR. The Committee voted unanimously to accept the assumptions of the Air Quality Work Group.

Overview of PEIR Alternatives

Gwen Buchholz, CH2M HILL, provided an overview of the final range of alternatives for the PEIR, and an overview of the information received from the SSA and the Imperial Group. In addition to the No Action CEQA and Variability conditions, the final range of alternatives consists of the following alternatives: Alternative 1, Saline Habitat Complex I; Alternative 2, Saline Habitat Complex II; Alternative 3, Concentric Rings; Alternative 4, Concentric Lakes; Alternative 5, North Sea; Alternative 6, North Sea Combined; Alternative 7, Combined North and South Lakes; and, Alternative 8, South Sea Combined. In general, the alternatives are arranged from least complex to more complex.

Ms. Buchholz provided a more detailed overview of the SSA's Combined North and South Lakes plan and the Imperial Group's Concentric Lake's Plan.

Combined North and South Lake Alternative, Salton Sea Authority

This alternative includes a Marine Sea in the north and along the western shore. Due to fresh water inflows from the New and Alamo rivers, the South Lake portion would have a slightly lower salinity, around 20,000 milligrams per liter, and the North Lake portion would have a slightly higher salinity, around 35,000 milligrams per liter. The alternative includes Saline Habitat Complex in the southern portion of the Sea, dedicated habitat zones in the North and South Lakes, and areas for pupfish connectivity. This alternative also includes three water treatment components: (1) a sand filtration and oxidation in the eastern shore of the Sea; (2) phosphorus removal for the New and Alamo river inflows; and, (3) wetlands on the New and Alamo rivers. Exposed playa would be mitigated with "managed salt crust", and no water would be allocated to air quality management activities. This alternative also includes a freshwater reservoir for IID, a variety of recreational opportunities, local economic opportunities, and accommodations for future geothermal development. Additional clarification is needed to develop this alternative.

The following is a summary of the Advisory Committee's discussion on the alternative:

- Based on a question from a Committee Member, Mr. Enzweiler, SSA, noted that the barrier is as far north as possible without getting into deep water and increasing the barrier costs.

- An Advisory Committee suggested that the PEIR include a description of the operation of the proposed 255,000 acre-feet IID reservoir.

- The SSA has provided a cost estimate for this alternative. However, costs for some components, such as the Saline Habitat Complex, were not included as the SSA assumes these would be funded by others. Also, costs could vary considerably depending on the locations of rockfill source and the methods to transport the material. Costs are being developed for this alternative and will be provided in the PEIR and ERS.

- This alternative will not use the one acre-foot per acre assumption for air quality management.

- The construction schedule was provided by the SSA. The SSA developed the schedule based on the construction schedule for The Metropolitan Water District of Southern California's Diamond Valley Reservoir.

- Based on a Committee Member's question, it was noted that the phosphorus removal will be considered in more detail in future site-specific studies. Mr. Enzweiler noted that the SSA is considering a 90 percent phosphorus reduction to improve water quality for body-contact recreational activities. A Committee Member noted that the silt Total Maximum Daily Load (TMDL) that is currently in place is helping to reduce phosphorus and further treatment may not be needed.

- Under this alternative, the Saline Habitat Complex uses water from the North Lake. The priority for water use is given to the Marine Lake in this alternative; whereas the priority is given to air quality and Saline Habitat Complexes for the other alternatives.

- A Committee Member noted that if the refuge is moved to the Saline Habitat Complex area, the drying out of this area would be contrary to the goals of the refuge.

- The SSA's alternative assumes a higher inflow than the State is assuming. However, Ms. Buchholz noted that all of the alternatives will be analyzed under a range of inflows.

Concentric Lakes Alternative, Imperial Group

This alternative includes a Perimeter Lake, an Outer Lake, and a Partial Inner Lake. The Perimeter Lake and the Outer Lake would go all the way around the Sea. The Perimeter Lake would have an elevation of 235 feet below sea level, and would be fresh to brackish. The Outer Lake would have an elevation of 245 feet below sea level, and would have a marine salinity. The Partial Inner Lake could be a higher saline lake or a Saline Habitat Complex. The berms would be constructed using geotubes, and the maximum water depths at the toe of the berms would be less than 6 feet, i.e. non-

jurisdictional under Division of Safety of Dams criteria. In general, inflows would be conveyed from the outer lakes to the inner lakes. Under this alternative, pupfish connectivity would be provided in the Perimeter Lake. Habitat islands and deeper areas could be created in all of the lakes for habitat. This alternative includes 100,000 acre-feet of water per year allocated to playa management activities. This alternative also includes recreational and economic opportunities.

Other Considerations

Ms. Hoffman-Floerke noted that the State will not be re-designing the SSA's or Imperial Group's alternatives. Based on a request from a Committee Member, it was noted that there may be an opportunity for the Habitat Work Group to consider these two alternatives at a future Work Group meeting.

A Committee Member noted that in most of the alternatives, the Saline Habitat Complex is located in an area with carbon dioxide vents, which may result in algae blooms. This may increase odors and reduce suitability for biological resources. This will be considered in more detail in the PEIR and ERS. In addition, it was noted that the Saline Habitat Complex is shown on the graphs as one continuous area. Based on future engineering and siting studies, the Complex may be configured to avoid areas with carbon dioxide vents and other constituents of concern in the sediments. In addition, the Complexes may be reconfigured to allow for geothermal development and avoid potential conflicts between geothermal development and habitat uses.

Phasing and Construction Assumptions for Alternatives

Gwen Buchholz provided an overview of the construction phasing assumptions, salinity during construction, and the possibility for an 'early start' program.

With regard to construction phasing, it is anticipated that facilities would be constructed in two distinct phases. The first phase would include construction of shoreline facilities, major barriers, and air quality management for playa areas as they are exposed. During Phase I, some infrastructure facilities such as sediment basins, conveyance facilities, and water treatment facilities can be constructed on shoreline areas. Some facilities such as perimeter dikes, canals, and berms can be started in the wet and completed in the dry. Saline Habitat Complex would be constructed as the Sea recedes. Water would be needed in Phase I to control dust emissions from construction. A harbor will be constructed to deliver materials (rockfill, geotubes, etc.) to the construction site. A variety of critical factors will affect the construction period, such as barrier foundation conditions, availability of rock, and compliance with air quality regulations. Overall, it is likely that the project would not be fully operational (Phase I would not be completed) until after 2018. Phase II would include expansion of facilities as the Sea recedes and stabilizes over time. Air quality management actions and the Saline Habitat Complex would be expanded as the Sea recedes.

The PEIR impact assessment will consider three different construction periods, the first from 2005 to 2017 when initial construction would be conducted, the second from 2018 to mid-2030s when initial construction would be completed and expanded construction would occur, and mid-2030s to 2077 when the Sea starts to stabilize and the project is fully operational.

Because the Sea's salinity will continue to increase over the construction period, even with Mitigation Water, an "early start" concept is being proposed to provide habitat during construction. Early start areas would also serve as pilot projects to test different design criteria. Based on a question from a Committee Member, it was noted that costs have not been developed for the early start areas. Various Committee Members noted that they agree with the early start concept and support inclusion of this in all of the alternatives. Ms. Hoffman-Floerke noted that the team is looking for ways to incorporate early start features into all of the alternatives.

Level of Detail in Impact Assessments

Ms. Buchholz provided an overview of the anticipated level of detail in the impact analysis, assumptions for alternative descriptions, and significance criteria for the PEIR.

With regard to the level of detail, programmatic Environmental Impact Reports (EIRs) provide adequate detail to compare a broad range of alternatives, whereas site specific or project-level EIRs identify a range of facility locations, material sources and construction methods. Quantitative analyses will be conducted for some resource areas where detailed information is available or where reasonable assumptions can be made, such as surface water, ecorisk and human health risk, and traffic. Qualitative analyses will be conducted for resource areas where detailed site-specific information is needed to determine impacts, such as public services and cultural resources. The PEIR will also identify future studies, permits and environmental documentation.

The PEIR will identify the assumptions that have been made that may need to be explored in more detail in future site-specific documentation. These include, but may not be limited to, future inflows, water quality considerations, location and amounts of habitat areas, availability of construction materials including rock and aggregate, and availability of deeds and easements.

The PEIR will identify direct, indirect and secondary impacts, along with construction and operations impacts. With regard to indirect growth impacts, the No Action Alternative will assume build-out of Imperial and Riverside counties consistent with the local General Plans.

Significance criteria will be based on Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. The criteria that clearly do not apply will not be included, and additional criteria will be added that are specific to the conditions at the Salton Sea. Based on a question from a Committee Member, it was noted that the significance criteria developed by the local air agencies will be used in the PEIR.

Project Schedule

Ms. Buchholz provided an overview of the project schedule and status. Over February and March, the initial CALSIM model runs were conducted for all of the alternatives. In addition, the Existing Conditions and No Action Alternatives descriptions were completed, along with descriptions of the final range of alternatives. Over the next month, it is anticipated that the stochastic CALSIM analysis and the three-dimensional water quality modeling will be completed. In addition, the Team is continuing its efforts on the impact assessment and preparation of the PEIR and ERS.

Overall, the schedule has slipped slightly, and the Draft PEIR and ERS are anticipated to be released in early May 2006. The Financing Plan is anticipated to be released in late May or early June, and the Final PEIR and ERS are anticipated to be released in November.

Future Advisory Committee participation is anticipated for review of the Draft PEIR and ERS, the Financing Plan, review of comments on Draft PEIR and ERS, and selection of the Preferred Alternative.

Summary of Action Items

The next Advisory Committee meeting will be held on June 2, 2006 at the California Association of Counties in Sacramento.

Handouts

Copies of the following presentations and related materials:

- Air Quality Management for Alternatives
- Level of Detail in Impact Assessments
- Overview of PEIR Alternatives
- Phasing and Construction Assumptions for Alternatives
- Update Project Schedule and Status
- Summary of Salton Sea Hydrology and Future Scenarios

ATTENDANCE

Advisory Committee Members or Alternates Present:

Marie Barrett, New River Citizens Congressional Task Force
Steve Birdsall, Imperial County Air Pollution Control District
Bart Christensen, State Water Resources Control Board
Kim Delfino, Defenders of Wildlife
Bill DuBois, California Farm Bureau Federation
Rick Gundry, Bureau of Indian Affairs
Rick Hoffman, Riverside County
Al Kalin, Imperial County Farm Bureau
Julia Levin, Audubon California
Joe Loya, Torres-Martinez Desert Cahuilla Indians (via video conference)
Silvia Oey, Air Resources Board
Dan Parks, Coachella Valley Water District
Larry Purcell, San Diego County Water Authority
Tom Raftican, United Anglers of Southern California
Jason Rhine, California Waterfowl Association
Vincent Signorotti, Geothermal Energy Association (via video conference)
Pete Silva, The Metropolitan Water District of Southern California
Steve Smith, South Coast Air Quality Management District
Mark Sogge, U.S. Geological Survey
Mike Walker, U.S. Bureau of Reclamation
Dan Walsworth, U.S. Fish and Wildlife Service
Bruce Wilcox, Imperial Irrigation District
Nancy Wright, Regional Water Quality Control Board
Gary Wyatt, Imperial County